

IN THE CLAIMS

The claims, as currently pending, are as follows:

- 1-4. (Canceled)
5. (Previously Presented) A method comprising:
 - receiving a first signal including at least one known symbol;
 - estimating a DC level of the first signal;
 - performing equalization on the first signal to form at least one estimated symbol;
 - remodulating the at least one estimated symbol to form a second signal;
 - re-estimating the DC level by comparing the first signal and the second signal;
 - calculating an initial DC estimation error by comparing estimates of the DC level of the first signal and re-estimates of the DC level;
 - weighting the at least one estimated symbol, wherein weighting comprises reducing a weight when the initial DC estimation error is above a threshold; and
 - performing channel decoding.
6. (Previously Presented) A method comprising:
 - receiving a first signal including at least one known symbol;
 - estimating a DC level of the first signal;
 - performing equalization on the first signal to form at least one estimated symbol;
 - remodulating the at least one estimated symbol to form a second signal;
 - re-estimating the DC level by comparing the first signal and the second signal;
 - calculating an initial DC estimation error by comparing estimates of the DC level of the first signal and re-estimates of the DC level;
 - weighting the at least one estimated symbol, wherein weighting comprises increasing a weight when the initial DC estimation error is below a threshold; and
 - performing channel decoding.
7. (Canceled)

8. (Previously Presented) The method of claim 5 wherein receiving a signal including at least one known symbol comprises receiving a training sequence of symbols.
9. (Previously Presented) The method of claim 8 further comprising repeating a list of actions for a plurality of slots of a global system for mobile communications (GSM) signal.
10. (Previously Presented) A method comprising:
 - receiving a signal that includes a training sequence of symbols;
 - estimating a channel parameter from the signal;
 - performing equalization to produce estimated symbols;
 - remodulating the estimated symbols and re-estimating the channel parameter;
 - calculating an initial estimation error by comparing results from estimating the channel parameter and re-estimating the channel parameter; and
 - weighting the estimated symbols, wherein weighting comprises reducing a weight when the initial estimation error is above a threshold; and
 - performing channel decoding.
11. (Original) The method of claim 10 wherein estimating a channel parameter comprises estimating a DC level of the signal.
12. (Original) The method of claim 10 wherein estimating a channel parameter comprises estimating a carrier to interference ratio.
13. (Original) The method of claim 10 wherein estimating a channel parameter comprises estimating a noise spectrum.
14. (Canceled)

15. (Previously Presented) The method of claim 10 further comprising re-performing equalization when the initial estimation error is above a threshold.
16. (Canceled)
17. (Original) The method of claim 10 wherein receiving a signal comprises receiving a global system for mobile communications (GSM) signal.
18. (Previously Presented) A computer-readable medium having machine-accessible instructions stored thereon that when accessed result in a machine performing:
 - remodulating a training sequence of symbols from soft decisions;
 - calculating an estimation error from received signal samples and remodulated signal samples; and
 - weighting the soft decisions in part by the estimation error, wherein weighting the soft decisions comprises increasing a weight when the estimation error is small.
19. (Previously Presented) The computer-readable medium of claim 18 wherein calculating an estimation error comprises comparing an estimation of a DC level of the received samples to a DC level of remodulated signal samples.
20. (Canceled)
21. (Previously Presented) The computer-readable medium of claim 18 wherein weighting the soft decisions further comprises decreasing a weight when the estimation error is large.
22. (Previously Presented) An apparatus comprising:
 - a parameter estimator adapted to estimate a channel parameter;
 - an equalizer coupled to the parameter estimator, the equalizer adapted to equalize a channel based at least in part on an estimate of the channel parameter; and
 - a processing element adapted to compare received signal samples and remodulated signal

samples, calculate an initial estimation error from the received signal samples and the remodulated signal samples, and to weight soft decisions by reducing a weight when the initial estimation error is above a threshold.

23. (Canceled)

24. (Original) The apparatus of claim 22 wherein the parameter estimator is adapted to estimate a DC level of a signal.

25. (Original) The apparatus of claim 22 wherein the parameter estimator is adapted to estimate a carrier interference ratio of the signal.

26. (Previously Presented) An electronic system comprising:

an omni-directional antenna;

a parameter estimator to estimate a channel parameter from a signal received from the omni-directional antenna;

an equalizer coupled to the parameter estimator, the equalizer to equalize a channel based at least in part on an estimate of the channel parameter; and

a processing element to compare received signal samples and remodulated signal samples, calculate an initial estimation error from the received signal samples and the remodulated signal samples, and to weight soft decisions by reducing a weight when the initial estimation error is above a threshold.

27. (Canceled)

28. (Original) The electronic system of claim 26 wherein the parameter estimator is adapted to estimate a DC level of the signal.

29. (Original) The electronic system of claim 26 wherein the parameter estimator is adapted to estimate a carrier interference ratio of the signal.

30. (Previously Presented) The method of claim 6 wherein receiving a signal including at least one known symbol comprises receiving a training sequence of symbols.

31. (Previously Presented) The method of claim 30 further comprising repeating the listed actions for a plurality of slots of a global system for mobile communications (GSM) signal.